

REMARKS

Claims 1-19 are presently in this application. No claims are currently amended. Claims 1, 8 and 16-19 are previously presented. Claims 2-7 and 9-15 are original. No claims are cancelled. No new matter has been introduced

Claim Rejections - 35 U.S.C. 103(a)

Claims 1, 7-10 and 16-19 are rejected under 35 U.S.C. 103(a) as being obvious from and therefore unpatentable over Mori et al. (U.S. 2003/0025718A1) and further in view of Hong (US 2003/0006952 A1).

Claim 1 recites a method for dynamic gamma adjustment of an LCD having a data driver and a gate driver, comprising the following steps:

detecting a brightness data of a data signal provided by the data driver;
classifying the brightness data into a predetermined brightness group;
providing a group of predetermined gamma signals according to the predetermined brightness group;
selecting a gamma signal from the group of predetermined gamma signals according to the brightness data; and
providing the gamma signal to the data driver.

Claim 8 recites a circuit for dynamic gamma adjustment of an LCD having a data driver and a gate driver, comprising:

a brightness sampling circuit for detecting a brightness data of a data signal provided by the data driver;
a brightness classifying circuit for classifying the brightness data into a predetermined brightness group;
a plurality of gamma voltage outputting circuits respectively providing a predetermined gamma signal; and

a gamma decision circuit for selecting one of the gamma voltage outputting circuits to provide the corresponding predetermined gamma signal of the predetermined brightness group to the data driver.

None of Mori and Hong teaches, discloses or suggests classifying the brightness data into a predetermined brightness group, selecting a gamma signal from the group of predetermined gamma signals according to the brightness data, and providing the gamma signal to the data driver.

Firstly, Applicant respectfully submits that none of Mori and Hong discloses **classifying the brightness data into a predetermined brightness group, and providing the gamma signal to the data driver** (please refer to paragraph [0044] of Mori). Mori only discloses that the brightness suppression coefficient is calculated according to the mean brightness, which is obviously different from **classifying the brightness data into a predetermined brightness group** as taught by Applicant and recited in Claims 1 and 8. It is known in the art that the “predetermined brightness group” is obviously different from “brightness suppression coefficient” because the predetermined brightness group is a group of brightness data with brightness values distributed within a predetermined range, but the brightness suppression coefficient is just some calculated value used to suppress the brightness value. Furthermore, the brightness multiplier of system control unit 21 of Mori only performs the arithmetic operation to multiply the video image signal S4 by the brightness suppression coefficient, and generates the display signal S10 (see paragraph [0047] and FIG. 1 of Mori). This is obviously different from **classifying the brightness data into a predetermined brightness group** as taught by Applicant and recited in Claims 1 and 8 since the operation of multiplying is obviously different to classifying. Thus, Applicant respectfully submits that Mori does not disclose **classifying the brightness data into a predetermined brightness group** as recited in Claims 1 and 8.

In addition, the display signal S10 of Mori being provided to the data driver for displaying corresponds to the signal “DATA” shown in FIG. 1 of the specification, not to the gamma signal.

Thus, Applicant respectfully submits that Mori does not disclose **providing the gamma signal to the data driver** as taught be Applicant and recited in Claims 1 and 8.

In addition, Applicant respectfully submits that none of Mori and Hong discloses **selecting a gamma signal from the group of predetermined gamma signals according to the brightness data**. Please refer to paragraph [0047], lines 13-20 of Hong, where it is disclosed that “the timing controller 24 generates switching control signals to control a switching action of the switch 36.” and the switching control signals are generated according to **the timing information of a frame**. For example, as recited by Hong, “[T]he timing controller 24 controls the switch 36 to output the gamma voltages of the first gamma circuit 32 during the first sub-frame SF1 and the gamma voltages of the second gamma circuit 34 during the second sub-frame SF2”. Thus, the gamma signals of Hong are selected according to the **timing information of a frame** (first sub-frame SF1 and second sub-frame SF2 as shown in FIG. 3 of Hong), **not according to the brightness data** as taught by Applicant and recited in Claims 1 and 8. For this reason, Applicant respectfully submits that Hong does not disclose **selecting a gamma signal from the group of predetermined gamma signals according to the brightness data** as taught be Applicant and recited in Claims 1 and 8.

Since not all features of Applicant's claimed invention are disclosed by Mori and Hong, it cannot be reasonably concluded that a person of ordinary skill in the art will be motivated either by the disclosure of the cited references or by his knowledge, to combine the disclosure of Mori with the disclosure of Hong, and render the invention of Claims 1 and 8. Applicant submits further that even if Mori and Hong can be combined in the manner proposed by the Examiner, which Applicant does not concede, the obtained results will not result in the combination of features of Applicants claimed invention.

For this reason alone, Applicant submits that Claim 1 is allowable over the cited references. Insofar as Claim 1 is allowable, Claims 2-7 and 16-17, which all depend from Claim 1 and its related claims, including every claimed element thereof, are also allowable on their own

merits in claiming additional elements not included in Claim 1. Moreover, for the reasons as described above, Applicant submits that Claim 8 is allowable over the cited references. Insofar as Claim 8 is allowable, Claims 9-15 and 18-19, which all depend from Claim 8 and its related claims, including every claimed element thereof, are also allowable on their own merits in claiming additional elements not included in Claim 8.

Claim 17 recites the method as claimed in claim 1, wherein the brightness data is detected by sampling several frames.

Claim 19 recites the circuit as claimed in claim 8, wherein the brightness data is detected by sampling several frames.

None of Mori and Hong teaches, discloses or suggests that the brightness data is detected by sampling several frames.

Referring to paragraph [0040] and FIG. 3 of Hong, it is clearly defined that the sub-frames SF1 and SF 2 are the time dividing of **one frame**. Thus, what is disclosed in paragraphs [0040]-[0042] of Hong is obviously different from the feature of “detecting the brightness data by **sampling several frames**” as taught by Applicant and recited in Claims 17 and 19, since the method based on the time dividing of **one frame** is obviously different from the method based on sampling **several frames**. Applicant respectfully submits that both the meaning and the technique of “one frame” and “several frames” will be different.

For this reason alone, Applicant submits that Claim 17 is allowable over all of the cited references. Moreover, for the reasons as described above, Applicant submits that Claim 19 is allowable over the cited references.

Claims 2, 3, 11 and 12 are rejected as being obvious from and therefore unpatentable over Mori in view of Hong further in view of Nishitani et al. U.S. 6,850,214. Claims 4, 5 and 13-15 are rejected as being obvious from and therefore unpatentable over Mori in view of Hong and further in view of Kim US 2003/0151565. Claims 6 and 15 are rejected as being obvious from and therefore unpatentable over Mori in view of Moon US 2002/0180680.

Applicant submits that none of these further combinations of references provides teaching or suggestion of the features found lacking above in Mori and Hong, whether taken alone or in any proper combination.

Conclusion

For the reasons as described above, Applicant submits that Claim 1 is allowable over the cited references. Insofar as Claim 1 is allowable, Claims 2-7 and 16-17, which all depend from Claim 1 and its related claims, including every claimed element thereof, are also allowable on their own merits in claiming additional elements not included in Claim 1. Moreover, for the reasons as described above, Applicant submits that Claim 8 is allowable over the cited references. Insofar as Claim 8 is allowable, Claims 9-15 and 18-19, which all depend from Claim 8 and its related claims, including every claimed element thereof, are also allowable on their own merits in claiming additional elements not included in Claim 8.

Withdrawal of the final rejection and allowance of all of the claims are respectfully requested. Applicant has made every effort to place the present application in condition for allowance. It is therefore earnestly requested that the present application, as a whole, receive favorable consideration and that all of the Claims be allowed in their present form.

Should the Examiner feel that further discussion of the application and the Amendment is conducive to prosecution and allowance thereof, please do not hesitate to contact the undersigned at the address and telephone listed below.

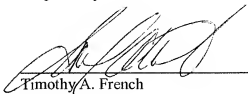
Applicant : Chien-Jen Chang
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Please apply any charges, or make any credits to deposit account 06-1050, referencing
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Respectfully submitted,

Date: February 22, 2008



Timothy A. French
Reg. No. 30,175

Fish & Richardson P.C.
225 Franklin Street
Boston, MA 02110
Telephone: (617) 542-5070
Facsimile: (617) 542-8906